REMARKS

By the *Final Office Action* of 15 September 2004, Claims 1-4 and 7-61 are pending in the Application, Claims 5 and 6 cancelled, Claims 1, 7 and 10-61 withdrawn, and Claims 2-4 and 8-9 rejected. Applicant files the present RCE and this *Response and Amendment with RCE*. Claim 2 is herein amended. The pending Claims are believed novel and non-obvious over the cited art.

No new matter is believed introduced by the present *Response and Amendment with RCE*. It is respectfully submitted that the present Application is in condition for allowance for the following reasons.

1. Docket Number and Change in Correspondence Address

Applicant respectfully requests the docket number of this Application be changed from 07648.0023 to GTRC156. The prosecution of this Application has been transferred to a new law firm, and its docketing procedures would benefit with this new docket number. A *Revocation and Appointment of Power of Attorney* to the present firm, and a *Change of Correspondence Address* is filed concurrently in the USPTO to reflect that the new law firm is now prosecuting this Application.

2. The Claims

Applicant amends Claim 2 to clarify and make more definite step b which recites the limitation of "detecting the expression of at least one RNA transcript". In the Applicant's previous response Claim 2 was amended to recite "...at least one RNA transcript corresponding to the cDNA sequence of SEQ ID NO: 79 or 131". In this *Response and Amendment with RCE*, Applicant clarifies and makes more definite the foregoing limitation as follows:

- Detection of the expression of at least one RNA transcript is further limited to "a conifer embryo"; and,
- The sequences (SEQ ID NO. 79 and 131) of step b are DNA sequences whereas it a RNA sequence that is detected. The Claim is currently amended to relate the detected RNA transcripts to the Applicant's DNA sequences as an RNA transcript that "is capable of hybrbridizing" to said cDNA sequences "under high stringency conditions".

It is thus respectfully submitted that the pending Claims after entrance of this *Response and Amendment with RCE*, now present Claims in form for allowance.

Support for the Claims as currently amended can be found in the title and specification of Applicant's invention. Support for the limitation of "conifer embryo" is found within the specification. *See page 15, paragraph [43].* Further, the invention is entitled "Differentially-expressed *conifer* cDNAs..."

The relationship of the detected RNA transcripts to the Applicant's DNA sequences in step b of Claim 2 as presently amended is found within the specification, see for example *page 18, paragraph 49*, which states as follows (emphasis added):

"...this invention provides an isolated nucleic acid molecule selected from the group consisting of:

(1) a DNA sequence comprising any one of the sequences presented in SEQ ID NO:1 through SEQ ID NO: 334;

(2) an isolated nucleic acid molecule that hybridizes to either strand of a denatured, double-stranded DNA comprising the nucleic acid sequence of (a) under conditions of moderate stringency; and

(3) *an isolated nucleic acid molecule that hybridizes to either strand of a denatured, double-stranded DNA comprising the nucleic acid sequence of (a) under conditions of high stringency.*"

3. Claim Rejections under 35 USC §102

Claims 2-4 and 8-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by US Patent No. 5,882,874 to Fisher. In view of the present amendment to Claim 2, Applicant believes this ground of rejection is overcome.

The Examiner states that "Fisher discloses a method for staging embryo cells in different developmental stages comprising E11 and E11-NMT cells, and detecting differential expression (correlating) from total cellular RNA." *Office Action*, Page 2. Applicant respectfully submits that Fisher does not teach or disclose a method for staging conifer embryos as recited in Claim 2.

Fisher discloses use of a method wherein E11 cells are injected into mice and are compared to cells that were not injected into mice. *Col. 6, Lines 41-48.* The E11 cells disclosed in Fisher are derived from rat embryo cells, which were transformed with adenovirus. *Col. 9, Lines 21-22.* Fisher discloses in this example a comparison of cells before and after injection

into mice, and not a comparison of cells at different embryonic stages.

The Examiner further states that "the method of Fisher detects the RNA transcript that has a sequence corresponding to the cDNA sequence of SEQ ID No. 79 under high stringency condition (Col. 10, lines 37-55)." *Office Action*, Pages 2-3. The Examiner then states that "Fisher discloses SEQ ID NO. 2 with a sequence "GTG" (positions 1-3) which corresponds to the sequence "GTG" (positions 2-4) of the instant SEQ ID No. 79, as in instant claim 2." *Office Action*, Page 3. Applicant respectfully submits that although the Fisher SEQ ID NO. 2 contains the three nucleotides "GTG", these three nucleotides ***are not*** capable of identifying Applicant's SEQ ID NO. 79. The mere presence of the three nucleotide sequence found in Fisher SEQ ID NO. 2 does not anticipate or teach the sequences of Applicant's currently claimed invention as recited in Claim 2.

Further, Applicant respectfully submits that none of the sequences disclosed by Fisher either anticipate or teach the Applicant's currently claimed invention.

Fisher does not anticipate or teach a method that is directed to the detection of specific nucleic acids, but rather a crude method, "reciprocal subtraction differential display", *Col. 3, Lines 6-8*, which identifies a set of genes that are expressed differently between two samples. *See Col. 5, Lines 17-25.*

The method taught by Fisher is akin to casting a net and identifying the contents caught by the net. Fisher does not teach a method that is *a priori* limited to a set of specific genes. *See Col. 14, Lines 1-5*, "...identified both known and unknown genes (Table 2)." Fisher does not anticipated or teach the use of specific nucleic acid sequences.

4. Fees

The new Applicant, as noted in the *Assignment* attached to the *3.73(b) Statement*, is a small entity.

This RCE is accompanied with the appropriate filing fee of $395.00.

Further, this RCE is being filed within six months of the *Final Office Action*, namely within four months, and thus a one month extension of time fee is included, with petition, in the amount of $60.00.

Should any further fees be due, authorization to charge deposit account No. 20-1507 is hereby expressly given.

CONCLUSION

By the present *Response and Amendment with RCE*, the Application has been in placed in full condition for allowance. Accordingly, Applicant respectfully requests early and favorable action. Should the Examiner have any further questions or reservations, the Examiner is invited to telephone the undersigned Attorney at 404.885.2773.

Respectfully submitted,

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